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Ontario

Ontario Ministry of Agriculture, Food and Rural Affairs

2001 SUPPLEMENT

Turfgrass Management Recommendations

Publication 384S

Pesticide Changes/Additions

TABLE 1-1. Classification of Chemicals Registered for Turfgrass (page 4)

TRADE NAME	PESTICIDE CATEGORY	COMMON NAME	LD_{50} (mg ai/kg)	CHEMICAL FAMILY
Eagle	fungicide	myclobutanil	2090	triazole
Heritage	fungicide	azoxystrobin	>5000	strobilurin
Senator	fungicide	thiophanate-methyl	6640	benzimidazole
Avigon	goose repellent	methyl-anthranilate	>10,000	n/a

TABLE 3-3. Disease Control (page 24-25)

DISEASE	CONTROL	Rate per $100m^2$	**Use enough water for thorough coverage. Follow label directions.**
Brown patch, Rhizoctonia blight (*Rhizoctonia solani*) Cool weather brown patch, yellow patch (*Rhizoctonia cerealis*)	Heritage*	6 g	Begin application before disease is present (usually late May or June) when conditions favour disease development (high surface moisture or humidity and warm night temperatures). During prolonged periods of favourable conditions apply on the shorter application interval. Application interval ranges from 14–28 days.
	Senator 70WP*	30–60 g	Apply when disease first occurs. Repeat when required (5–21 days). Use minimum of 24L of water. Apply after mowing or avoid mowing for 12 hours after application. When disease pressure is severe, apply at the higher rate.
	Rovral Green	125–250 mL	*See comments from Table 3-3 under Brown patch*
Dollar Spot (*Sclerotinia homoeocarpa*)	Eagle 40WSP*	15–20 g	Start applications before or immediately after the first signs of disease development and continue on a 14–21 day interval. A tank mix with Daconil, applied on a 21–28 day schedule, is recommended for resistance management. Do not apply more than 4 applications per year. Under conditions optimum for sever disease development, the spray interval should be at the shortest schedule and at the high rate.
	Senator 70WP*	25–30 g	Apply after mowing or avoid mowing for 12 hours after applications. When disease pressure is severe, apply at the higher rate. Alternate or tank mix with another product from another chemical family to minimize the potential of fungicide resistance developing.
	Rovral Green	62 mL	*See comments on Table 3-3 for dollar spot*

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	Rovral Green	125–250 mL	*See comments from Table 3-3 under Brown patch*
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	Rovral Green	62 mL	*See comments on Table 3-3 for dollar spot*

TABLE 3-3. Disease Control (page 24-25)

DISEASE	CONTROL	Rate per 100m^2	Use enough water for thorough coverage. Follow label directions.
Fusarium patch *(Microdochium nivale)*	Heritage*	6 g	Apply when conditions are favourable for disease development, i.e., extended period of cool (<15.5°C) and wet weather in spring and fall. Apply every 14–28 days when favourable conditions exist.
	Rovral Green	185 mL	*See comments in Table 3-3 under Fusarium patch*
Grey snow mould Typhula blight *(Typhula* spp.)	Heritage* Rovral Green	18–24 g 375 mL	Apply in late fall before snow cover. Do not apply on top of snow. Use the higher rate if there is a history of severe snow mould infection on the site.
Helminthosporium leaf spot/melting out *(Dreschslera* spp.)	Rovral Green	125 mL	*See comments in Table 3-3 under Helminthosporium leaf spot*
Pink snow mould *(Microdochium nivale)*	Heritage* Senator 70WP* Rovral Green	18–24 g 125–175 g 250–375 g	Apply in late fall before snow cover. Do not apply on top of snow. Use the higher rate if there is a history of severe snow mould infection on the site.
Powdery mildew *(Erisiphe graminis)*	Senator 70WP*	125–250 g	Apply after mowing or avoid mowing for 12 hours after applications. When disease pressure is sever, apply at the higher rate.
Pythium blight *(Pythium aphanidermatum)*	Heritage*	12 g	Begin application before disease is present (usually late May or June) when environmental conditions favour disease development, i.e., relative humidity greater than 90% for at least 9 hours, maximum daily temperature of 27.7°C and low temperature of 20°C.

* Alternate or tank mix with another product from another chemical family to minimize the potential of fungicide resistance developing.

Additions

Canada Geese can be a nuisance in turf areas such as golf courses and municipal parks. The product below will discourage geese from feeding on turf.

Canada Goose Repellent	Application Directions	Comments
Avigon 14.5	Apply 13L/ha. Mix Avigon 14.5 with water at a ration of 1 part product to 19 parts water.	Product is registered for golf courses and municipal parks. Do not mow treated area for as long as possible after treatment. Do not apply when grass is wet or when rain is expected or when temperatures are below freezing. Repeat after 3 days if warranted by Canada goose activity.

Seed Changes/Additions

Replace Table 5-3, *Grass Seed Available in Ontario,* page 36, with the table below.

TABLE 5-3. Grass Seed Available in Ontario

Species	Company								
	Bishop	**Corland**	**EroGreen**	**Graham**	**Ontario**	**Pickseed**	**Scotts sold by ProTurf**	**Quality**	**Speare**
Kentucky Blue	Abby Ascot Award Bluemoon Freedom II Goldrush Impact Liberator Minnfine NuGlade Odyssey Rambo Rugby II Shamrock Total Eclipse	Baron Goldrush Liberator Regent Shamrock	Apollo Arcadia Award Baronie Denim Gnome NuGlade P-105 Shamrock Total Eclipse Viva	Absolute Adelphi Arcadia Argyle Award Baron Blue-Chip Cannon Fairfax Impact Liberator Kenblue NuGlade Odyssey Princeton 105 Rambo Regent Showcase SR2100 Total Eclipse	Award Caliber Liberator NuBlue NuStar Rambo Shamrock	Alpine America Banff Bronco Crest Indigo Limousine Marquis Quantum Leap Touchdown	Abbey Ascot Buckingham Coventry Envicta	Apollo Serene Blackstone Brilliant Arcadia Alene Blacksburg Chateau Coventry Midnight Raven Abbey Envicta Rugby II Voyager Denim Merit	Award Bluechip Goldrush Jewel Liberator Minnfine NuBlue NuGlade Odyssey Rambo Shamrock Total Eclipse
Perennial Ryegrass	Academy Accent Archer Elf Top Hat	Academy Elf Monterey	Affinity Catalina Pinnacle Premier II	Caddyshack Champion Blend Goalkeeper SR4000 SR4010 SR4100 SR4200 SR4300 SR4400	Academy Accent Divine Elf Player Spectacular Top Gun	Cutter Edge Express Fiesta II Futura 3000 Lowgrow	Ascend Divine	Blackhawk Brightstar Brightstar II Esquire Line Drive Loredo Majesty Secretariat Stallion Supreme	Academy Accent Archer Blackhawk Elf Top Hat
Fescue: Creeping Red	Florentine	Vista	Boreal Franklin Salem	SR5200E Cindy Hectar	Fenway Florentine Salem	Boreal Jasper Perneille	Creeping Red Fenway	Boreal Eugene Florentine Herald	Franklin Florentine
Fescue: Chewings	Sandpiper Southport	Koket Southport	Bridgeport Southport Tiffany	SR5100 SR5000 Sandpiper	Jamestown II Sandpiper Southport Wilma	Victory II	Banner III	Banner III Shadow II Wilma	Sandpiper Wilma
Fescue: Hard	Brigade	Nordic Serra	Bornito Warwick	SR3100 SR3000 Osprey	Heron Rescue 911 Warwick	Spartan	Brigade	Discovery Osprey Serra	Brigade Heron
Fescue: Sheeps	MX86	MX86	Barok	MX86	MX86AE			Quattro	Azure MX86
Fescue: Tall	Arid III Pedestal	Empress Jaguar II Shenandoah	Bonsai Vegas	SR8200 Bonanza Crewcut	Arid III Excalibur Millenium Pedestal	Crossfire Mini Mustang Mustang II Shortstop II Team Jr.	Adobe Aztec	K31 Shenandoah II Wildfire	Arid III Millennium Monarch Pedestal
Bentgrass: Colonial	Highland	Highland	Highland	Highland SR7100	Highland	Exeter Highland		Highland	Highland

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Species	Company								
	Bishop	**Corland**	**EroGreen**	**Graham**	**Ontario**	**Pickseed**	**Scotts sold by ProTurf**	**Quality**	**Speare**
Bentgrass: Creeping	18th Green L-93 Penn A-4 Penn G-6 Penncross Penneagle Pennlinks Pennway Providence SR1020	Penncross Penneagle Pennlinks Pennway	L-93 Penn A-4 Penn G-6 Penncross Penneagle Pennlinks Trueline	L-93 Dominant Dominant Plus Penn A-4 Penn G-6 Penncross Penneagle Pennlinks Pennway Providence SR1020 SR1119 SRO bentgrass	Dominant Plus 18th Green L-93 Penn A-4 Penn G-6 Penn Trio Coated Penncross Penncross Penneagle Pennlinks Pennway Providence SR1020	Aggressor Cato Mariner National Penncross Penneagle Pennlinks Pennway	Penncross Penneagle Pennlinks Procup	Penn A1 Penn A4 Penncross Penneagle Pennlinks Pennway	Penn A-4 Brighton 18th Green Penn G-6 L-93 Penncross Penneagle Pennlinks Pennway Providence SR1020
Poa trivialis	Winterstar		Cypress	Sabre	Fuzzy Sabre Sunup Winterstar	Colt		Sabre II Winterplex	Sunup Winterstar
Poa supina			Supranova						
Poa compressa	Canada Blue		Canada Blue	Ruebens	Canada Blue Reubens				Canada Blue
Weeping alkali	Fults Salty		Fults Salty	Fults Salty					Fults Salty

Additions/Deletions/Changes to TABLE 5-4

- **Delete** AgriBio Tech Canada, Inc.
- **Add** EroGreen Seed
  9446 McLaughlin Rd. N., Unit # 16
  Brampton, ON, L6X 4H9,
  1-866-817-7333
  (905) 453-1582 (fax)
- **Add** Quality Seeds
  8400 Huntington Rd, R.R. #1
  Woodbridge, ON, L4L 1A5
  1-877-865-SEED
  (905) 856-7509 (fax)
- **Change** The Scotts Company to ProTurf

Additions to APPENDIX C, page 41

Ontario Ministry of Agriculture, Food and Rural Affairs Contacts

Agricultural Information Contact Centre
Phone: (877) 424-1300 or (519) 826-4047
Fax: (519) 826-7610
E-mail: ag.info@omafra.gov.on.ca
Address: 1 Stone Road West, Guelph Ontario N1G 4Y2

Provides province wide, toll free technical and business information to commercial farms, agri-businesses and rural businesses.

Guelph Government Information Centre
Staff Directories — 1-888-466-2372 or (519) 826-3100

A complete list of Ontario Ministry of Agriculture, Food and Rural Affairs — Crop Technology Staff is available on our **Web site** at www.gov.on.ca/OMAFRA/english/crops

Replace APPENDIX D, page 41

ONTARIO MINISTRY OF THE ENVIRONMENT PESTICIDE CONTROL OFFICES		
REGION **County**	**PESTICIDES OFFICER** **Address**	**TELEPHONE**
Central Region Toronto, Halton, Peel, York, Durham	**Charles Zubovits** 5775 Yonge St, 8th Floor Toronto, Ontario M2M 4J1	(416)326-3671 Toll Free 1-800-810-8048 Fax (416)325-6347
West-Central Region Haldimand-Norfolk, Niagara, Hamilton-Wentworth, Dufferin, Wellington, Waterloo, Brant	**Paul McCubbin** Ontario Government Building 119 King St. West, 12th Floor Hamilton, Ontario L8P 4Y7	(905)521-7667 Fax (905)521-7820
Eastern Region Frontenac, Hastings, Lennox & Addington, Prince Edward, Leeds & Grenville, Prescott & Russell, Stormont/Dundas & Glengarry , Haliburton, Peterborough, Victoria, Northumberland, Renfrew, Ottawa-Carleton, Lanark, District of Nipissing (Twsps of Airy, Murchison, Dickens, Lyell and Sabine)	**Andrew Morley** **Laurel Grills** 133 Dalton Avenue P.O. Box 820 Kingston, Ontario K7L 4X6	(613)549-4000 Fax (613)548-6908 Toll Free 1-800-267-0974
Southwestern Region Elgin, Middlesex, Oxford, Essex, Kent, Lambton, Bruce, Grey, Huron, Perth, Simcoe	**Doug Morrow** **Wray Lampman** 695 Exeter Road, 2nd Floor London, Ontario N6E 1L3	(519)873-5041 (519)873-5048 Fax (519)873-5020
Northern Region Manitoulin, Nipissing, Parry Sound, Sudbury, Algoma East, Cochrane East, Muskoka Kenora, Rainy River, Thunder Bay, Algoma West, Cochrane West, Timmins	**John Negusanti** 199 Larch Street, Ste 1101 Sudbury, Ontario P3E 5P9 **Don Mitchell** 435 James St. S., Suite 331 Thunder Bay, Ontario P7E 6S7	(705)564-3249 Fax (705)564-4180 (807) 475-1712 Fax (807) 475-1745
Standards Development Branch	Pesticides Section 40 St. Clair Avenue West, 7th Floor Toronto, Ontario M4V 1M2	(416)327-5519 Fax (416)327-2936
Approvals Branch	Pesticides Licensing 2 St. Clair Avenue West, 12A Floor Toronto, Ontario M4V 1L5	(416)314-8001 Fax (416)314-8452

Each year the appropriate sub-committee of the Ontario Pest Management Research and Services Committee reviews the pesticides listed in this publication. To the best knowledge of the sub-committee, all of these pesticides were:

- federally registered
- reviewed by the Ontario Pesticides Advisory Committee (OPAC) and
- classified by the Ministry of the Environment as of November 2000

Discard old editions of this publication.

The information in this publication is general information only. All pesticides must be used in accordance with the product label and Regulation 914 under Ontario's *Pesticides Act*.

Pay close attention to all instructions and warnings on the pesticide label.

By printing this publication, the Ministry of Agriculture, Food and Rural Affairs does not offer any warranty or guarantee, nor does it assume any liability for any crop loss, animal loss, health, safety or environmental hazard caused by the use of a pesticide mentioned in this publication.

Policy Statement

In this publication, most recommendations list several pesticides that can be used for each pest discussed. In general the least hazardous materials and those growers have used satisfactorily for years are listed first. More toxic pesticides and/or newer ones with less practical grower experience follow. In some cases, the most effective pesticides are highly toxic.

This publication lists a number of brand names of pesticides. This is for the grower's convenience only. It is neither an endorsement of the product nor a suggestion that similar products are ineffective.

Weather and other factors influence the effectiveness of pesticides and the likelihood of crop injury by pest control chemicals. Consult the product label and other information regarding compatibility with other materials, the effect of environmental conditions, and so on for the specific product being considered. Wettable or soluble powders (WP, SP, WDG or DG) are less likely to cause plant injury than liquid concentrates (EC, SC and F).

Health Canada has established maximum residue limits (MRLs) for pesticides. However, growers should be aware that processors or retailers may demand more restrictive limits. Growers should seek advice of their intended market as to which restrictions or limitations apply. Growers are also encouraged to keep accurate and up to date records on pesticide use in each crop.

Federal Registration and Provincial Classification

The Ministry of the Environment administers Ontario's *Pesticides Act* and Regulation 914.

Federal Registration

The Pest Management Regulatory Agency (PMRA) of Health Canada grants registration following an evaluation of scientific data to ensure that the product has merit and value; and the human health and environmental risks associated with its proposed use are acceptable.

1. Full Registration

Pesticide registrations are normally granted for a period of five years, subject to renewal.

2. Temporary Registration

Temporary registration may be granted for a period not to exceed one year, where the registrant agrees to produce additional scientific or technical information, or the pesticide is used for emergency control of a serious pest outbreak.

For more information on the federal registration system contact the PMRA at 1-800-267-6315 or www.hc-sc.ca/pmra-arla.

Provincial Classification

There are six classification schedules in Regulation 914 . Pesticide products are classified based on their toxicity, environmental or health hazard, persistence of the active ingredient or its metabolites, concentration, and usage. This system regulates the distribution, availability and use of pesticide products in Ontario. For up-to-date information on the regulatory status of these or other pesticides contact the:

Ontario Pesticides Advisory Committee (OPAC),
2300 Yonge St., Suite 1203, Toronto, ON, M4P 1E4
Telephone (416) 314-9230 Fax (416) 314-9237
www.opac.gov.on.ca

Farmer Certification

Regulation 914 of the *Pesticides Act* makes it mandatory for farmers to be certified through the Grower Pesticide Safety Course to buy and use Schedules 1, 2 or 5 pesticides on land they farm. There must be at least one Certified Grower for each farm operation.

As of January 2000, all assistants must receive formal pesticide safety training, recognized by the Ministry of the Environment, before they can use Schedule 2 or 5 pesticides under the supervision of a Certified Grower. This applies to all assistants — including family members, farm employees and seasonal workers.

For more information check the Ontario Pesticide Education Program Web site at www.ridgetownc.uoguelph.ca/opep/ or call **1-800-652-8573 or (519) 674-1580**

Cette publication est aussi disponible en français.

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